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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional)	
<p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]</p> <p>on <u>March 16, 2006</u></p> <p>Signature <u><i>Mal U. Griffin</i></u></p> <p>Typed or printed name <u>Malvern U. Griffin III</u></p>		Application Number	Filed
		10/804,274	March 19, 2004
		First Named Inventor	
		Hull	
		Art Unit	Examiner
		3744	Mohammad M. Ali
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. 38,899 Registration number _____</p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p> <p><input type="checkbox"/> *Total of _____ forms are submitted.</p>			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. : 10/804,274
Filed : March 19, 2004
Applicant : Hull, et al.
Title : Slope Predictive Control and
Digital PID Control

TC/AU : 3744
Examiner : Mohammad M. Ali

Docket No. : 15555-0035
Customer No. : 29052

PRE-APPEAL BRIEF REVIEW STATEMENT

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This statement describes the bases for which review is being requested pursuant to the Notice of Appeal and the Pre-Appeal Brief Request for Review submitted concurrently herewith in connection with the above-identified application.

The Rejection

Claims 39-43 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,450,999 to Scholten et al. In the Final Office Action it is stated that Scholten et al. discloses a variable air volume environmental management system comprising a controlled device (damper) that can be actuated to change the control variable; a sensor 18/32 for measuring the control variable; a microcontroller 10 configured for executing computer executable instructions; receiving a measurement from the sensor 18/32 actuating the controlled device (damper).

However, no *prima facie* case of anticipation has been properly established because, as detailed below, the Examiner's rejection is based on clear error as to the teaching of Scholten et al.

The Invention

Applicants' claims are directed to a variable air volume (VAV) control system for controlling a HVAC system, wherein the VAV temperature control system determines the sensitivity of a control device (e.g., a damper) and then actuates the controlled device based at least in part on the determined sensitivity. For example, in the illustrative embodiment the change in airflow in response to damper movement is tracked to determine sensitivity (e.g., a slope) of the damper. This information is then used to determine if subsequent damper movement is required based upon the current measured temperature value and the set point temperature. Please see, for example, Paragraphs 0016-0018 of the Application.

I. **The Examiner Clearly Errs in His Assertion That Scholten Teaches or Suggests either "determining the sensitivity of the controlled device" Or "actuating the controlled device based at least in part on . . . the sensitivity of the controlled device to predict an amount of actual actuation necessary" as Recited in Independent Claims 39 and 42**

The Examiner expressly relies on the Scholten patent to meet Applicants' claim limitations recited independent Claims 39 and 42 of "determining the sensitivity of the control

device” and “actuating the control devised based at least on part on . . . the sensitivity of the control device.” The Examiner argues that “sensor 18/32 is sensing the sensitivity of the damper by sensing the flow process value in the air set point” (see Final Office Action, Response to Arguments, page 2). However, Scholten et al. teaches that sensor 18 is an airflow pickup probe for determining airflow (see, e.g., Col. 4, lines 63-65) and sensor 32 is a room temperature sensor (see Col. 5, line 37). Further, Scholten teaches that the signals from the airflow sensor 18 and from the room temperature sensor 32 are used by the VAV terminal controller 10 to determine the output signal for the damper motor (see, e.g., Fig. 2, and in particular Line 62 of Fig. 2, and Col. 6, lines 26-34). As is appreciated by those of ordinary skill in the art, these are well-known devices in VAV temperature control systems, similar to the airflow sensor 106 and room temperature sensor 110 disclosed by the present application in Paragraph 0020. The use of an airflow sensor and/or temperature sensor in determining an output signal for a damper motor is well known, as generally discussed in the Background of the Invention section of the present application. However, sensing an airflow rate or a room temperature is not “determining the sensitivity of the control device” and there is no teaching or suggestion found anywhere in Scholten et al. directed to the sensor 18/32 determining the sensitivity of the damper.

The Examiner cited the Abstract and Col. 4, line 21 to Col. 8, line 38 of Scholten et al. in support of the alleged teaching regarding the sensor 18/32, yet the Applicants find no support for the Examiner’s assertion. As discussed in Applicants’ Amendment filed 9/23/06, page 7, Scholten et al. is directed to the use of fuzzy logic to control the actuation of a controlled device, and does not teach or suggest the determination and use of the sensitivity of the controlled device. (See Col. 2, line 67 to Col. 3, line 2, and Col. 4, lines 55-59).

II. **The Examiner Clearly Errs in His Assertion that Scholten Teaches “the sensitivity of the controlled device comprises a slope of a response curve of change in the controlled variable per adjustment of the controlled device” As Recited in Dependent Claims 40 and 43**

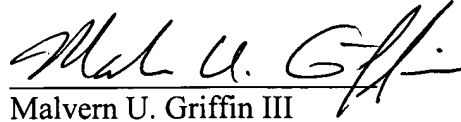
In the Response to Arguments section of the Final Office Action, the Examiner states that a sensitivity “slope” is not a claimed element and does not bear any patentable weight when it is in fact recited in both Claim 40 and Claim 43. In particular, both claims recite “wherein the sensitivity of the controlled device comprises a **slope** of a response curve of change in the controlled variable per adjustment of the controlled device” (emphasis added). There is no stated support for the rejection of Claims 40 and 43 nor can the Applicants find any teaching in Scholten et al. with regard to the teaching of a damper sensitivity slope that is a response curve of change in the controlled variable per adjustment of the controlled device.

Conclusion

No *prima facie* case of anticipation has been established for Applicants’ Claims 39-43. The Scholten et al. patent fails to disclose or remotely suggest all of the elements and limitations of Applicants’ claims. Prompt allowance of each claim is respectfully solicited.

U.S.S.N. 10/804,274
Filed: March 19, 2004
STATEMENT FOR PRE-APPEAL
BRIEF REQUEST FOR REVIEW

Respectfully submitted,



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Date: **March 16, 2006**
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